



PATENT APPLICATION

Our File No.: 20030323.ORI

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re App : Naomi E. Chayen : January 12, 2004
S.N. : 10/680,390 : Art Unit unknown
Filed : October 2, 2003
For : METHODS OF CRYSTAL OPTIMISATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER RULE 1.56

Applicant(s) herein make available to the Patent and Trademark Office a copy of Form PTO-1449 which lists the following document(s), copies of which are enclosed. This Information Disclosure Statement is being filed in accordance with the following provision(s):

- ☐ 37 CFR 1.97(b)(1) Within three months of the filing date of the national application. No fee is required.
- ☐ 37 CFR 1.97(b)(2) Within three months of the date of entry of the national stage as set forth in § 1.491 in the international application. No fee is required.
- ☒ 37 CFR 1.97(b)(3) Before the mailing date of a first Office Action on the merits. No fee is required.
- ☐ 37 CFR 1.97(c) After the periods specified in 37 CFR 1.97(b), but before the mailing date of either: (1) a final action under § 1.113 or (2) a notice of allowance under § 1.311, whichever occurs first.

- [] The undersigned hereby certifies that each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement; or
- [] The undersigned hereby certifies that no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in § 1.56(c) more than three months prior to the filing of this statement; or
- [] Enclosed is a check in the amount of \$200.00 for the fee set forth in 37 CFR § 1.17(p). The Commissioner is hereby authorized to charge any additional fees which may be required under 37 C.F.R. 1.17, or credit any overpayment, to Deposit Account No. 08-1265. Two copies of this sheet are enclosed.
- [] 37 CFR 1.97(d) After the mailing date of either (1) a final action under § 1.113 or (2) a notice of allowance under § 1.311, whichever occurs first, but before payment of the issue fee.
- [] Applicant(s) hereby petition the Commissioner of Patents and Trademarks to consider this information disclosure statement. Enclosed is a check in the amount of \$130.00 for the petition fee set forth in § 1.17(i)(1). The Commissioner is hereby authorized to charge any additional fees which may be required under 37 C.F.R. 1.17, or credit any overpayment, to Deposit Account No. 08-1265. Two copies of this sheet are enclosed.

The Examiner is requested to consider carefully the complete text of these documents in connection with the examination of the above-identified application in accordance with 37 CFR 1.104(a). It is requested that the documents listed on the attached Form PTO-

1449 be included in the "References Cited" portion of any patent issuing from this application (M.P.E.P. 1302.12), and that the Examiner initial and return a copy of the form to evidence consideration of the documents.

Dated: January 12, 2004.

Respectfully submitted,

NIKOLAI & MERSEREAU, P.A.



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CERTIFICATE OF MAILING

I hereby certify that the foregoing Information Disclosure Statement Under Rule 1.56, and a Form PTO-1449 to be filed in connection with application Serial No. 10/680,390 of inventor, Naomi E. Chayen, filed October 2, 2003, for "METHODS OF CRYSTAL OPTIMISATION" is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 12, 2004.



Barbara L. Davis
Secretary to C. G. Mersereau

Date of Signature: January 12, 2004



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Sheet 1 of 2

Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Document Number 20030323.ORI	Application Number 10/680,390
	Applicant Naomi E. Chayen	
	Filing Date October 2, 2003	Group Art Unit

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,705,628	01/06/98	Hawkins			
	4,052,320	10/04/77	Jakubowicz			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
	WO 01/92293	12/06/01	PCT				
	WO 01/30499A1	05/03/01	PCT				
	WO 99/15876	04/01/99	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Papers, Etc.)

	Dong et al, ACTA CRYSTALLOGRAPHY, <i>Bound-Solvent Structures for Microgravity-, Ground Control-, Gel-and Microbatch-Grown Hen Egg-White Lysozyme Crystals at 1.8 A Resolution</i> , 1999, D55, pp. 745-752
	Robert et al, OXFORD UNIVERSITY PRESS, <i>Crystallisation in Gels and Related Methods</i> , (1999)
	Chayen, PROTEIN ENGINEERING, <i>A Novel Technique for Containerless Protein Crystallization</i> , 1996, Vol. 9, No. 10, pp 927-929
	Chayen, STRUCTURE, <i>The Role of Oil in Macromolecular Crystallization</i> , October 15, 1997, Vol. 5, pp. 1269-1274

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.



(2-92)
Sheet 2 of 2

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FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Papers, Etc.)

		Chayen, ACTA CRYSTALLOGRAPHY, <i>Comparative Studies of Protein Crystallization by Vapour-Diffusion and Microbatch Techniques</i> , 1998, D54, pp. 8-15
		Durbin and Feher, ANNU REV. PHYS. CHEM., <i>Protein Crystallization</i> , 1996, Vol. 47, pp. 171-204
		Sawyer and Turner, PRACTICAL APPROACH, <i>X-Ray Analysis</i>

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